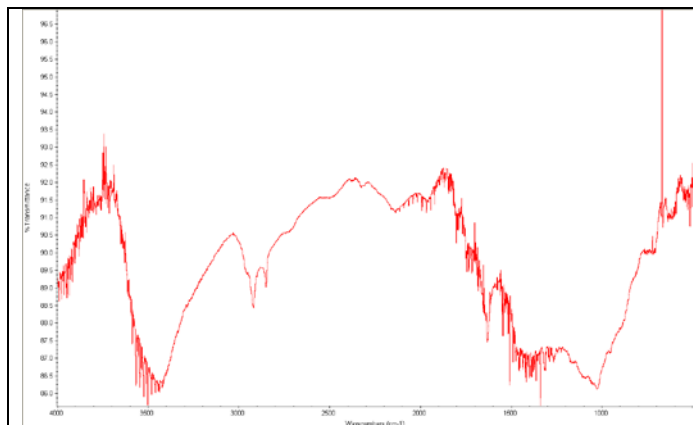
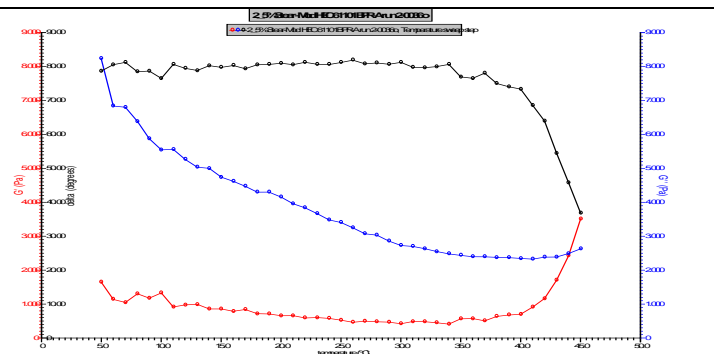


No. AO055 Certificate of Analysis

Product Name: Stearate-modified hydroxyethyl Cellulose (Lot#61101BPR-A)



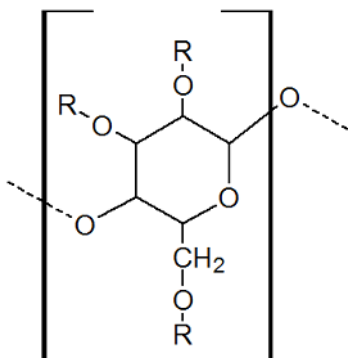
FTIR Analysis Method: Pelleted and placed in Nicolet Protégé 460 and analyzed in transmission mode.



Rheology performed on AR550 (TA instruments) with 60mm 2 degree cone on 2.5% w/v polymer in water dissolved in cold deionized water. Viscosity of solution at 0.1 (sec⁻¹) and 5°C was measured (1 minute peak hold 5 second test intervals). Rheology performed by oscillating at constant 6.283 rad/s, 0.1% strain, in increments of 1 C ranging from 5-45 °C with 3 minutes of temperature equilibration at each point.

Viscosity at 5C	1.570 Pa.s
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Chemical Structure



R = -H, -CH₂CH₂OH, -CO(CH₂)₁₆CH₃, or CH₂CH₂OCO(CH₂)₁₆CH₃